**Standard Form GREEN**

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| --- | --- | --- | --- |
| 1) Is each number below written in standard form? (YES or NO) | | | |
| 7 x 10-51 | 3.881 x 1037 | 6.923 | 73.383 x 1090 |
|  |  |  |  |
| 2 x 10-24 | 8 x 1059 | 3.7651 x 1078 | 6.007 x 15-98 |
|  |  |  |  |

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| 2) Write as a normal number: | | | |
| 9.92 x 106 | 7 x 100 | 7 x 105 | 5.255 x 102 |
|  |  |  |  |

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| --- | --- | --- | --- |
| 3) Write in standard form: | | | |
| 32006 | 45.5 | 2300 | 177500 |
|  |  |  |  |

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| --- | --- | --- | --- |
| 4) Write as a normal number: | | | |
| 3 x 10-1 | 2.982 x 10-5 | 7.9 x 10-3 | 9.528 x 10-6 |
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| --- | --- | --- | --- |
| 5) Write in standard form: | | | |
| 0.02 | 0.00054287 | 0.0000656 | 0.0000089 |
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| 6) Write as a normal number: | | | |
| 8 x 10-3 | 5.286 x 100 | 2.1 x 106 | 2.14 x 10-2 |
|  |  |  |  |

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| 7) Write in standard form: | | | |
| 0.0002508 | 33000 | 77.7 | 0.25799 |
|  |  |  |  |

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| 8) Calculate the following, giving your answers in standard form: | |
| (4 x 10-7) x (7 x 10-10) | (3 x 1020) ÷ (6 x 1010) |
|  |  |
| (6.6 x 10-6) + (7.7 x 10-8) | (5.3 x 10-9) – (6.8 x 10-10) |
|  |  |

**Standard Form AMBER**

|  |  |  |  |
| --- | --- | --- | --- |
| 1) Is each number below written in standard form? (YES or NO)  Numbers must be:  1 ≤x < 10  Multiplied by a power of 10 (can include 101). | | | |
| 7 x 10-51 | 3.881 x 1037 | 6.923 | 73.383 x 1090 |
|  |  |  |  |
| 2 x 10-24 | 8 x 1059 | 3.7651 x 1078 | 6.007 x 15-98 |
|  |  |  |  |

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| --- | --- | --- | --- |
| 2) Write as a normal number:  Positive indices so numbers will be > 1. | | | |
| 9.92 x 106 | 7 x 100 | 7 x 105 | 5.255 x 102 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 3) Write in standard form: | | | |
| 32006 | 45.5 | 2300 | 177500 |
|  |  |  |  |

Negative indices so numbers will be < 1.

|  |  |  |  |
| --- | --- | --- | --- |
| 4) Write as a normal number: | | | |
| 3 x 10-1 | 2.982 x 10-5 | 7.9 x 10-3 | 9.528 x 10-6 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 5) Write in standard form: | | | |
| 0.02 | 0.00054287 | 0.0000656 | 0.0000089 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 6) Write as a normal number: | | | |
| 8 x 10-3 | 5.286 x 100 | 2.1 x 106 | 2.14 x 10-2 |
|  |  |  |  |

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| --- | --- | --- | --- |
| 7) Write in standard form: | | | |
| 0.0002508 | 33000 | 77.7 | 0.25799 |
|  |  |  |  |

Multiply or divide the numbers, apply the laws of indices to the powers of 10.

|  |  |
| --- | --- |
| 8) Calculate the following, giving your answers in standard form: | |
| (4 x 10-7) x (7 x 10-10) | (3 x 1020) ÷ (6 x 1010) |
|  |  |
| (6.6 x 10-6) + (7.7 x 10-8) | (5.3 x 10-9) – (6.8 x 10-10)  Alter the numbers so the powers of 10 are the same. Add or subtract as normal. |
|  |  |

**Standard Form RED**

|  |  |  |  |
| --- | --- | --- | --- |
| 1) Is each number below written in standard form? (YES or NO)  Numbers must be:  1 ≤x < 10  Multiplied by a power of 10 (can include 101). | | | |
| 7 x 10-51 | 3.881 x 1037 | 6.923 | 73.383 x 1090 |
|  |  |  |  |
| 2 x 10-24 | 8 x 1059 | 3.7651 x 1078 | 6.007 x 15-98 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 2) Write as a normal number:  Positive indices so numbers will be > 1. | | | |
| 9.92 x 106 | 7 x 100 | 7 x 105 | 5.255 x 102 |
| 9.92x1000000 | 7 x 1 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 3) Write in standard form: | | | |
| 32006 | 45.5 | 2300 | 177500 |
| 3.2006x10000 | 4.55 x 10 |  |  |

Negative indices so numbers will be < 1.

|  |  |  |  |
| --- | --- | --- | --- |
| 4) Write as a normal number: | | | |
| 3 x 10-1 | 2.982 x 10-5 | 7.9 x 10-3 | 9.528 x 10-6 |
| 3 x 0.1 | 2.982x0.00001 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 5) Write in standard form: | | | |
| 0.02 | 0.00054287 | 0.0000656 | 0.0000089 |
| 2 x 0.01 | 5.4287x0.0001 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 6) Write as a normal number: | | | |
| 8 x 10-3 | 5.286 x 100 | 2.1 x 106 | 2.14 x 10-2 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 7) Write in standard form: | | | |
| 0.0002508 | 33000 | 77.7 | 0.25799 |
|  |  |  |  |

Multiply or divide the numbers, apply the laws of indices to the powers of 10.

|  |  |
| --- | --- |
| 8) Calculate the following, giving your answers in standard form: | |
| (4 x 10-7) x (7 x 10-10) | (3 x 1020) ÷ (6 x 1010) |
| (4 x 7) x (10-7 x 10-10) | (3 ÷ 6) x (1020 ÷ 1010) |
| (6.6 x 10-6) + (7.7 x 10-8) | (5.3 x 10-9) – (6.8 x 10-10)  Alter the numbers so the powers of 10 are the same. Add or subtract as normal. |
| (6.6 x 10-6) + (7.7 x 10-2 x 10-6) | (5.3 x 10-9) – (6.8 x 10-1 x 10-9) |